Abstract

The present invention relates to an ultrasonic flow sensor equipped with at least one ultrasonic transducer (A, B) for transmitting and receiving ultrasonic signals (A0, B0) and one receiver unit (4) that is connected to the ultrasonic transducer (A, B) and detects a zero crossing (N) of the ultrasonic signal (A0, B0) as a reception time after the ultrasonic signal (A0, B0) has exceeded a predetermined threshold (SW). The measurement precision of the sensor can be significantly improved if the receiver unit (4) determines the time of a value characteristic of the ultrasonic signal (A0, B0) and determines the relative time shift (deltat) of the characteristic value (Amp_{max}, T_s) in relation to the zero crossing (N_0, N_1) that is detected as the reception time (t_0).

Fig. 3